

Claims:

1. An integrated circuit, comprising at least one of:
  - circuitry that performs dynamic rake reception based on a figure of merit;
  - circuitry that provides rake reception within zones;
  - circuitry that uses table entries for setting tracking parameters;
  - circuitry that maintains digital control of gain based on dual thresholds; and
  - circuitry that controls a state machine by data addressing.
2. A method for demodulating data using a rake receiver having a plurality of rake teeth, comprising:
  - computing a correlator sum value derived from samples received by at least one rake tooth;
  - computing sample variance for the samples received by the at least one rake tooth;
  - determining a figure of merit (FOM) for each tooth based on the sample variance value; and
  - excluding a correlator sum associated with a rake tooth bases on the FOM value, when demodulating data.
3. A method for receiving signals using a rake receiver, comprising:
  - defining zone associated with the teeth of a rake receiver;
  - correlating the received signals at the zones concurrently to find the best rake teeth placement in each zone; and
  - keeping track of how often a tooth representing a zone qualifies a criteria.
4. A method for tracking received signals, comprising:
  - successively retrieving tracking parameters relating to at least one of a tracking gain and tracking bandwidth setting from a table; and
  - applying the retrieved parameters to a tracking process.

5. A method for controlling a state machine, comprising:

generating a memory address that corresponds to a current state of the state machine; and

retrieving the data content of the memory address to determine a next state of the state machine.